

REMARKS**Status of the Claims**

Claims 43, 45-47, 49, 51-52, 55-56, 59, and 61-66 are pending. Claims 62, 63, and 66 are amended. Claims 1-42, 44, 48, 50, and 53-54 are cancelled without prejudice. Claims 62, 63, and 66 were amended to establish that a single blade structure is intended as supported by the figures.

Rejections under 35 USC §§132(a) and 112

The action requires cancellation of new paragraph [0019] as being new matter. However, Applicant believes that the original disclosure does provide support for the specific dimensions and dimension relations between elements recited in paragraph [0019]. In paragraph [0011] of the originally filed specification, it is stated that FIG. 1 illustrates a cross-sectional view of an embodiment of a muffler according to the invention. Being a cross-sectional view of an embodiment it is believed that the scale of the parts in the figures is inherent to the disclosure. As such, the rejections under § 112 also should be removed.

Request for Reconsideration

Nakamura deals with removal of water from the exhaust system of a jet skii. While his vortical vane 38 spins the products of combustion, the abstract of the patent shows that this feature is designed to make the "heavy cooling water contained in exhaust gas...flow away and divided by ...centrifigal force" so that "on the other hand, exhaust gas flows straight and speedily from the expansion chamber toward the second inner cylinder 34.". From this explanation, it is clear that Nakamura doesn't swirl the gases through the chamber to the outlet, except to the extent necessary within his first chamber to the extent that water is removed, and to permit the gas to flow straight through the chamber. Gas which is not entrained in the central stream will hit the baffle of the second chamber

arranged against and not in the flow of exhaust (see the baffle of the wall of the second cylinder 28 which will direct the gas flow back toward the vane 38 situated to block the path of the gas). In other words, while the water swirls, the gas does not. Applicant respectfully submits that developing a method by which engine exhaust can be efficiently discharged into water is irrelevant in view of the presently claimed invention. Even so, the relative diameter and length of the chamber a related to the inlet 25 does not fall within the limitation of applicant's present claims.

Weiss' chamber is monstrous when comparing his relative geometry of the diameter of the inlet to the diameter of the chamber. In Weiss, gases are intended to substantially expand and slow to muffle noise. It is submitted that the presence of expanding gas in the large chamber will create back pressure, rather than rapid exhaust of the gas. Ross likewise doesn't meet applicant's claimed geometry and ratio limitations, and, additionally, Ross has multiple propellers rotating clockwise and counter-clockwise so that the gas flow is broken up and there is no smooth flow of gases; resulting in back pressure on the engine from such an arrangement. This is further evident from the alternating disposition of the blades, i.e. one set arranged in the direction of flow and the next set directed in opposite the direction of flow, and Ross also places a deflector 28 in the direction of the gas flow to further block and agitate the gas stream.

Where Weiss and Ross are designed to slow the flow of gas coming from an engine exhaust and Nakamura separates heavy water from gas with a centrifuge, it would not be possible for a person of ordinary skill in the art to use these structures in combination to make the applicant's advance obvious. Add that factor to the present claimed geometry and ratios of applicant, as claimed, and, it is submitted, that Section 103 of the Act cannot realistically apply to the present invention. Even when improperly combined because the references are

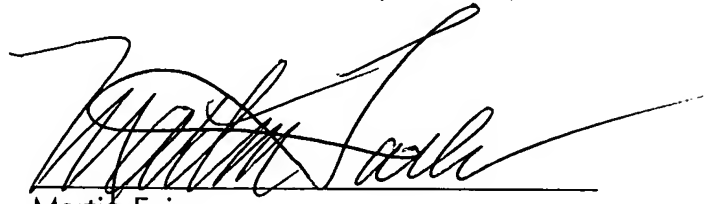
directed to problems other than those addressed by the presently claimed invention, the presently claimed invention does not result.

Applicant submits that the claims as now presented recite patentable subject matter and distinguish over the references.

Conclusion

The Applicant believes each of the Examiner's concerns have been addressed to overcome the rejections. Upon the indication of allowable subject matter, Applicant respectfully requests that Examiner Phillips contact the undersigned at the number below to expedite issuance of this case.

Respectfully submitted,


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